H. W. MoMILLAN.

AUTOMATIC LABEL AFFIXER.

APPLICATION FILED JULY 11, 1904.

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## United States Patent Office.

HARRY W. McMILLAN, OF STAFFORD, KANSAS.

## AUTOMATIC LABEL-AFFIXER.

SPECIFICATION forming part of Letters Patent No. 785,322, dated March 21, 1905.

Application filed July 11, 1904. Serial No. 216,189.

To all whom it may concern:

Be it known that I, HARRY W. McMillan, a citizen of the United States, residing at Stafford, in the county of Stafford and State of Kansas, have invented new and useful Improvements in Automatic Label-Affixers, of which the following is a specification.

My invention relates to automatic label-affixers, and more particularly to that class to known as "cutter and plunger" label-affixers.

The object of my invention is to produce an automatic label-affixer which is operated by the cylinder in a novel manner.

Furthermore, the object of the invention is to produce an automatic label-affixer which is of a construction best adapted to be used in conjunction with any ordinary printer's form.

Furthermore, the object of the invention is to produce an automatic label-affixer having a cutter adapted to sever the labels from a continuous strip and force said severed strips against the paper being printed.

Furthermore, the object of the invention is to provide an automatic label-affixer having novel means for moistening the gummed side of the label-strip, so that said severed portion of the strip will readily adhere to the paper being printed.

Finally, the object of the invention is to produce an automatic label-affixer which will possess advantages in points of efficiency and durability, proving at the same time comparatively inexpensive to manufacture and sustain.

With the foregoing and other objects in view the invention consists in the details of construction and in the arrangement and combination of parts to be hereinafter more fully set forth and claimed.

In describing the invention in detail reference will be had to the accompanying drawings, forming part of this specification, wherein like characters denote corresponding parts in the several views, and in which—

Figure 1 is a top plan view. Fig. 2 is a side view in elevation with parts broken away, showing the means for raising the top plate. Fig. 3 is a bottom plan view. Fig. 4 is a top view with the top plate removed. Fig. 5 is a view in elevation, showing the top plate in 5° a raised position. Fig. 6 is a similar view in

elevation, showing the top plate in its lower position. Fig. 7 is a view in elevation, showing the corrected reller

ing the corrugated roller.

In the drawings, 1 denotes the frame, which is approximately rectangular in shape, said 55 shape being best adapted to be secured in any ordinary printer's form by any suitable means. A top plate 2, upon which the name of the newspaper may be engraved, is provided with depending lugs 3 3 3 3 near each corner of 60 the top plate and adapted to enter holes in the frame. The lugs are provided with grooves, through which a small pin passes, so that the lugs may be raised or lowered in the holes by means of springs 4. I also form in- 65 tegral with the top plate a rack 5, the teeth of which mesh with the cogs of a wheel 6. This wheel in turn meshes with a cog-wheel 7, said last-named wheel being provided with a pawl 8, which engages teeth formed upon 70 the end of the shaft of the corrugated rubber roller 9.

It will be observed that when the cylinder passes over the label-affixer the top plate is forced downward by the contact of the cylin- 75 der, and the rack 5 being forced downward with the top plate partially rotates the wheels 6, and thus the other cog-wheels are moved, and the ratchet moves the corrugated roller, and as the pressure is relieved from the top 80 plate the rack is then carried upward, which movement gives a reverse movement to the cog-wheels, and to prevent the corrugated roller from being turned in a reversed movement, which movement would force the strip 85 back from the cutter, the ratchet slips back over the teeth on the shaft of the roller, and the strip is held in a position so that when the top plate is again pressed down the movement of the corrugated roller will carry forward a 90 predetermined portion of the strip having an address printed thereon.

It will be noted that I also form lugs 10 and 10' integral with the top plate, said lugs having their lower ends seating on levers 11 and 95 12, which raise the cutter 13, and in order to lower the cutter to its normal position I provide springs 14.

In my device I use a strip of paper having the names of the subscribers printed upon one 100

side and a coating of mucilage, paste, or other adhesive substance covering the opposite side. The strip is fed in the label-affixer over plate 15, under plate 16, and over the corrugated 5 roller 9 and plate 17, thence under the crosspiece 18 to the cutter 13. The upper surface of the cutter 13 is flattened, so that when a portion of the strip is severed it is carried upward against the paper being printed by the 10 cutter, and in this manner the strip is affixed to the paper. To insure the perfect adhesion of the severed strip to the paper being printed, I supply a moistening device, which consists of a perforated pipe 19, secured transversely 15 of the frame and immediately in front of the cutter. The pipe 19 is connected to a suitable water-supply by means of the pipe 20, or the last-named pipe may be connected to a suitable steam-supply, and a small quantity 20 of steam would also moisten the gummed surface of the strip in order to make the adhesion more perfect.

The construction, operation, and advantages will, it is thought, be understood from the foregoing description, it being noted that various changes may be made in the proportions and details of construction for carrying the invention into practice without departing from

the scope of my invention.

Having fully described my invention, what I claim as new, and desire to secure by Letters

Patent, is—

1. In an automatic label-affixer, a frame adapted to lock in a form with the type, a movable plate carried by the frame, a cutter operated by the movable plate, means for moving a gummed label-strip a predetermined distance and means for moistening the gummed surface of the label-strip, substantially as described.

2. In an automatic label-affixer, a frame, a top plate movably secured on the frame, a cutter reciprocally secured transversely the frame, means for imparting motion to the cutter, a rack carried by the top plate, a train of gear-wheels meshing with said rack, one of said gear-wheels being provided with a ratchet and said ratchet imparting motion to a corrugated roller, and means for moistening the label-strip, substantially as described.

frame, a top plate secured upon the frame, means for holding the top plate in a raised position, a cutter reciprocally secured in the frame, levers operated by the top plate for raising the cutter, springs for imparting a downward movement to the cutter and means

for moistening the label-strip as and for the

purpose described.

4. In a device of the character described, a frame, a top plate provided with lugs suitably secured on said frame, a rack carried by the top plate, gear-wheels meshing with said rack and a corrugated roller operated by the gear-

wheels, and a cutter carried by the frame and means for operating the cutter as and for the 65

purpose described.

5. In an automatic label-affixer, a frame, a top plate having lugs formed integrally therewith and adapted to seat in apertures in the frame, springs suitably secured beneath each 70 lug, a rack formed integrally with the top plate and meshing with a cog-wheel, a second-named cog-wheel provided with a ratchet said ratchet meshing with teeth on the shaft of a corrugated rubber roller, levers operated by 75 the top plate and a cutter reciprocally mounted in the frame and operated by the levers, and a water-pipe suitably connected to a water-supply substantially as described.

6. In an automatic label-affixer, a frame provided with apertures, a top plate having lugs movably secured on the frame, a rack carried by the top plate, a train of gear-wheels operated by the rack, a corrugated roller operated by the train of gear-wheels, a cutter reciprocally mounted in the frame, levers for imparting an upward movement to said cutter, a spring for returning said cutter to its normally lowered position, and a water-pipe suitably connected to a second water-pipe for 90 moistening the gummed side of a label-strip

substantially as described.

7. In an automatic label-affixer, a frame adapted to be locked in a form having a plate movably secured thereon, said plate being provided with lugs and a rack, gear-wheels meshing with the rack, levers pivotally mounted in the frame and connected with said lugs, a cutter secured on the ends of the levers, means for moving a gummed label-strip a predetermined distance, and means for moistening the gummed surface of the label-strip as and for

the purpose described.

8. In an automatic label-affixer, a frame adapted to be locked in the form in the space carrying the title-types, a top plate provided with lugs movably secured on the frame, a rack formed integrally with said top plate, gear-wheels mounted in said frame and meshing with the rack carried by the top plate, a corrugated roller mounted in said frame and operated by the gear-wheels, levers having a cutter secured on one end pivoted in the frame, said free ends of the levers bearing against the under surfaces of said lugs, whereby motion is imparted to the cutter, and means for moistening the gummed surface of a label-strip substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two sub- 120

scribing witnesses.

## HARRY W. McMILLAN.

Witnesses:

FREDERICK O. LITTLEFIELD, EARL AKERS.